



BOSCH

IS76 Beacon with Ferrite Antenna

Installation Manual

Document # F.01U.278.518 V2

IS76 Beacon with Ferrite Antenna: Installation Manual

Edition: October 2013

Author: TeleAlarm

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Robert Bosch Healthcare Systems, Inc.

2400 Geng Road, Suite 200

Palo Alto, CA 94303

U.S.A.

Phone: 650-690-9100

Toll Free: 1-888-947-8957

Fax: 650-798-3770

www.bosch-telehealth.com



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Locator Function

The Resident Alert System can be set to handle a locator function. For this purpose, beacon modules and antennas of type IS75 or IS76 need to be installed on doors or corridors in the building you want to supervise. When passing one of these modules the Wristband Transmitters of type MIYS37L refresh the position information that is stored into them. When triggering an alarm, the MIYS37L transmitters do not only transmit the identification (who sent the alarm), but also the position of the last passed module (where has the alarm been triggered).

At the arrival of a call, the information of the actual position is indicated additionally on the Main or Relay Units. This information can be made visible by pressing the yellow button on the Main or Relay Unit.

“Locator” information block:

HELP	A03
POS: 077	

255 positions (POS: 000 - 254) can be differentiated. When passing beacon modules with position numbers 231 - 254 the MIYS37L transmitters can send a call for help automatically without manual activation (wandering). Fixed transmitters that do not handle a Locator function (N46) are always indicated with the position 000.

IS76 Beacon with Ferrite Antenna

The IS76 Beacon system consists of two elements:

- The IS76 Ferrite Antenna
- The IS76 Ferrite Beacon Controller

IS76 Ferrite Antenna

The IS76 Ferrite antenna has to be mounted on the place that has to be identified with a location beacon code. The antenna is well suited to be mounted in a vertical position on (or next to) a door frame. In some circumstances it may also be mounted horizontally. The IS76 Ferrite Antenna can be placed outdoors as well as indoors.

IS76 Ferrite Beacon Controller

The IS76 Ferrite Beacon Controller is necessary to drive the IS76 Ferrite Antenna. It connects to the mains power via an external power supply. Up to two IS76 Ferrite Antennas may be connected to the IS76 Beacon Controller, depending on the size of the passage that has to be covered with the beacon. The beacon location code is set-up on the IS76 Ferrite Beacon Controller. Contrary to the ferrite antenna, the IS76 Ferrite Beacon Controller has to be mounted indoors, in a well ventilated cool place.

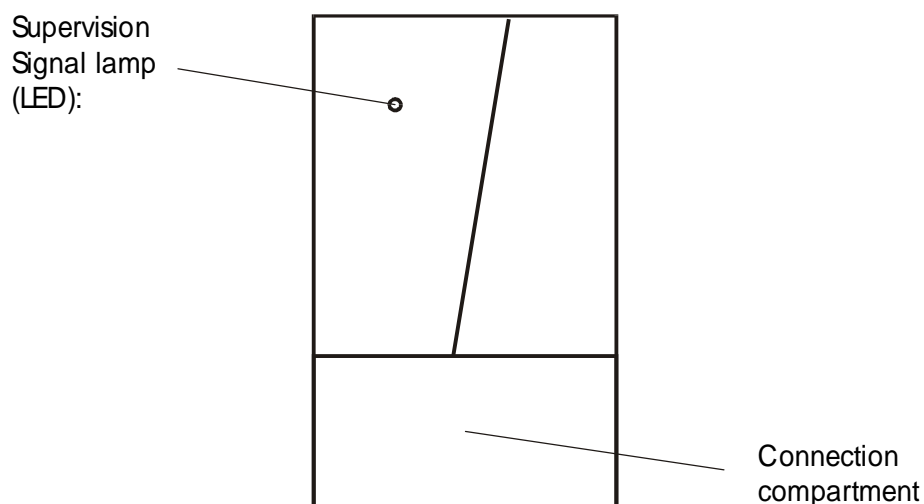


Figure 1

System Supervision

The operation of the IS76 Beacon system is supervised. An eventual operation failure (broken wire or overload) is indicated by the front panel LED and by the opening of a "normally closed" relay contact that is accessible from the terminal block. The supervision output may be connected to an MIYRAC-type alarm transmitter which would transmit the beacon operation failure to the Resident Alert System.



Features of the IS76 Beacon System

- Ferrite antenna offers a better defined capture range that is less dependent on the surrounding building material
- The antenna may be installed in or outdoors
- Up to 230 user selectable position (location) codes (001 to 230)
- Up to 24 user selectable "Wandering" codes (231 to 254)
- Supervision of the beacon functionality

IS76 Ferrite Antenna

The antenna is best fitted to be mounted vertically on a door's frame. In any case, the middle of the antenna should be at a height of 40 inches (1 meter) from the floor. The antenna has to be fixed by two screws, according to the figure below.

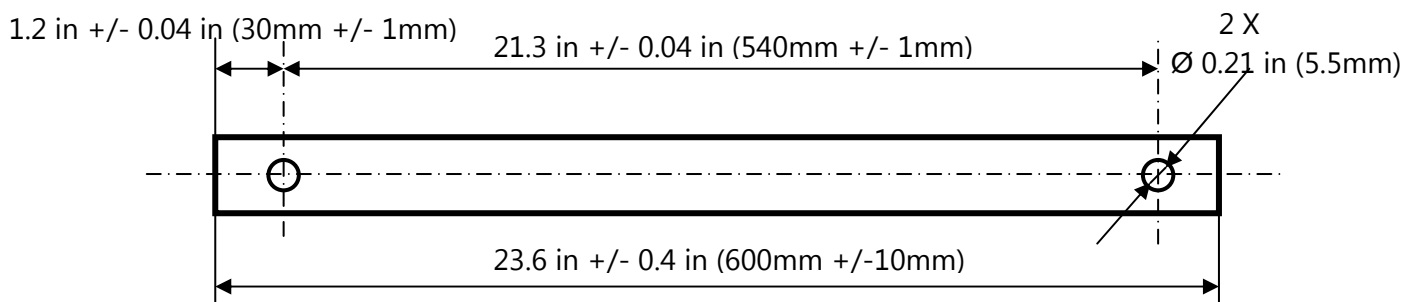


Figure 2

- Remove the cover caps at both ends of the antenna by sliding them against the outside
- Secure the antenna against the wall with both screws
- Replace the cover caps by sliding them over the housing

Note:

Even if the functionality of the Ferrite Beacon System is not affected by the presence of metallic items, it is not recommended to fix the antenna directly against such items. In order to avoid overheating of the IS76 Beacon Controller, install the antenna at least 0.6 in (1.5 cm) away from metallic frames or surfaces.

IS76 Beacon Controller

The IS76 Beacon Controller can be fixed with two to five screws on the wall. Two holes at 2.36 in (60 mm) interval are provided for direct mounting on connection boxes.

The three upper holes are used for positioning the device and cannot be reached from the Connection Compartment.

Two of the lower holes can be reached from outside and thus used for fixing the device.

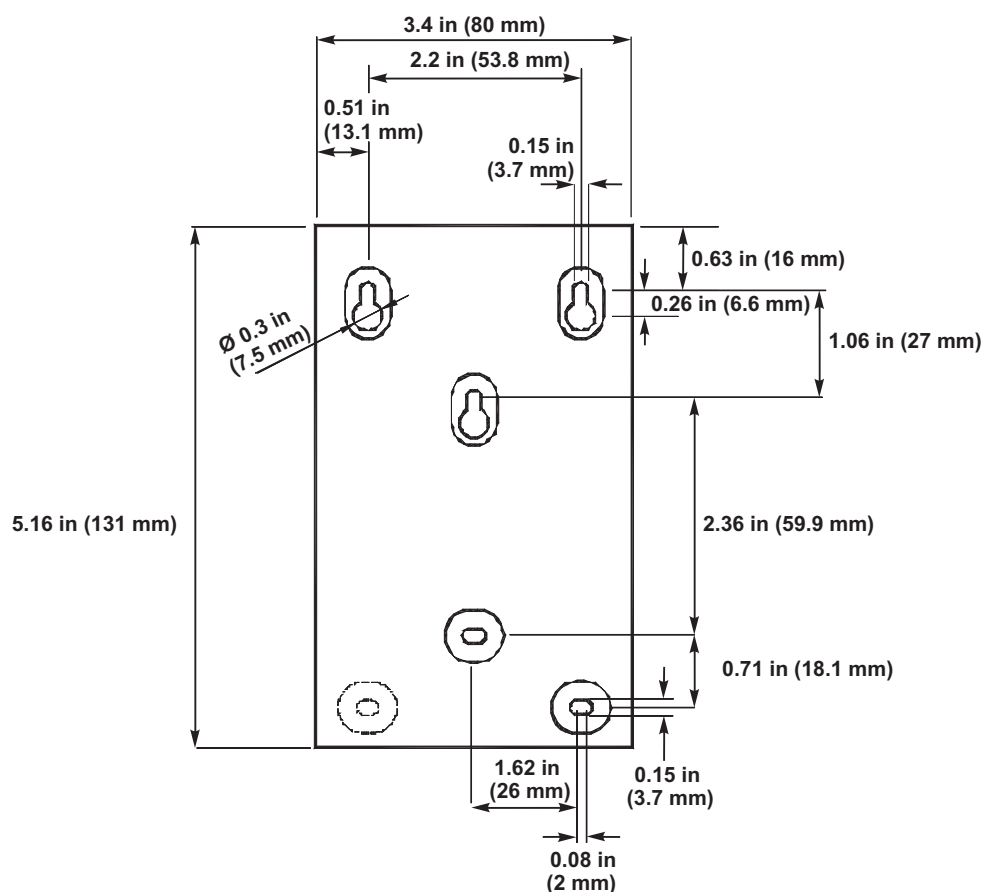


Figure 3

Important Note:

In order to ensure proper cooling of the Beacon Controller, the unit needs to be installed vertically in a well ventilated place (avoid to mount it in sealed boxes).



Connection Compartment

All of the wiring and configuration functions such as:

- Connection of the IS76 Ferrite Antenna(s)
- Connection of the wired supervision output
- Setting of the Location identification code

can be carried out in the connection compartment. It is reached by taking off the lower part of the housing (see). This can be done even if the device is fixed on the wall.

The connection cables can be channelled towards the outside through the hole next to the terminal blocks or downwards by breaking off part of the rear housing.

Connection of the power supply can be done without taking off the lower part of the housing.

Enable Locator Function in Resident Alert System

In order to be operational, the Locator function has to be enabled in the Main Unit (refer to section "Selection Locate Function YES or No" in the Main Unit user manual)

Configuration and Wiring

*Antenna B is optional
It is used to extend the
capture range on large
(double) doors

Supervision Signal Lamp:
Green: ok
Red: operation failure

Position number:

128	64	32	16	8	4	2	1
+	+	+	+	+	+	+	+
ON							
1	2	3	4	5	6	7	8

Example above:

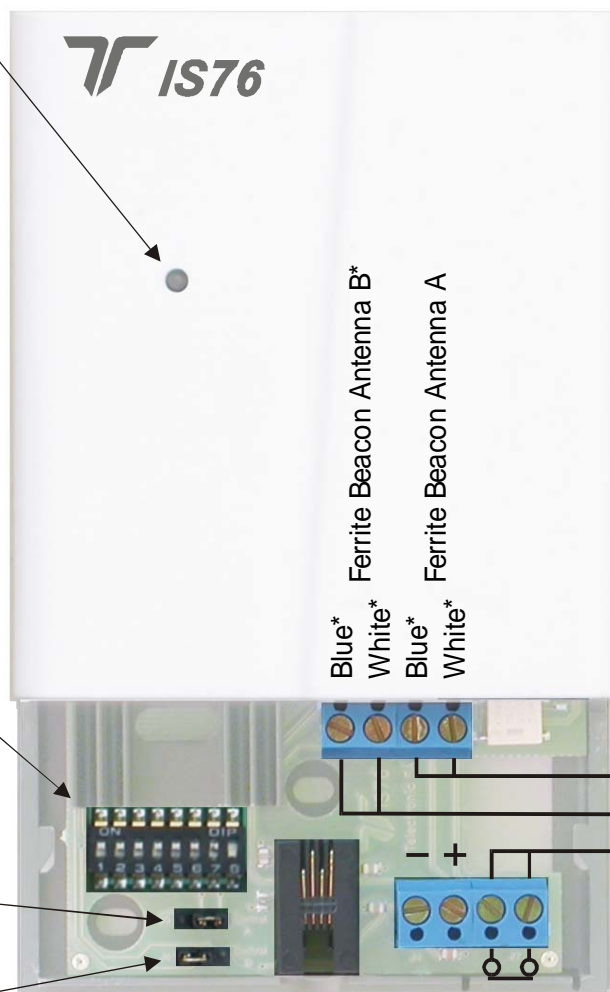
1x128
+ 1x64
+ 1x32
+ 1x16
+ 1x8
+ 0x4
+ 0x2
+ 0x1
= 248

Supervision of
Beacon A:

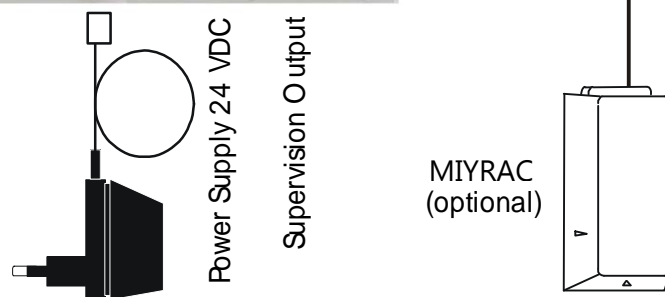
Supervision of
Beacon B:

Enabled ☐

Disabled ☐



*Polarity of
the antenna
and the
wiring has to
be respected
when two
antennas are
used for the
same beacon
location



Notice: position numbers 21 and 42 cannot be used!

Ferrite Beacon Antenna

Housing

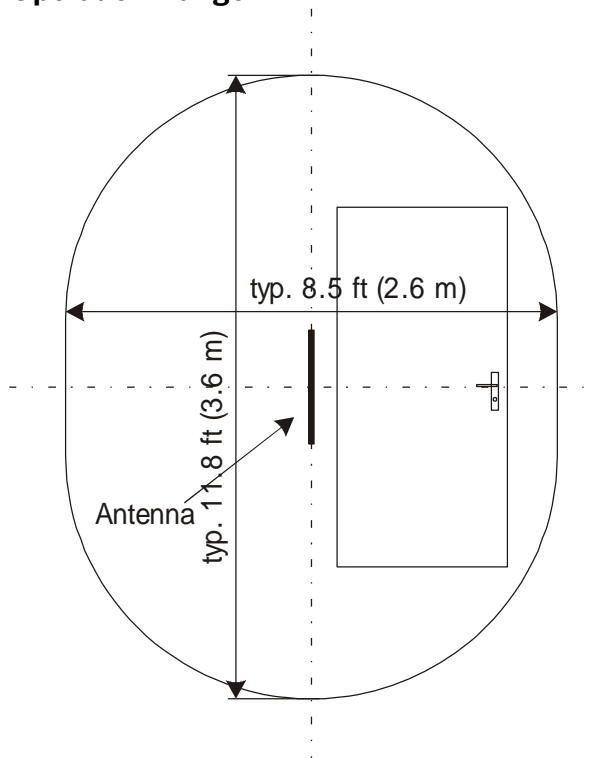
Plastic case ASA for wall mounting

- L x H x P 24 x 1.2 x 1.2 in
(600 x 30 x 30 mm)
- Weight 24.7 oz (700 g)

Connecting cable

- 6.6 ft (2 m) "twisted pair"
- may be extended up to 32 ft (10 m)

Operation Range¹



¹ When used in conjunction with MIYS37L Wristband Transmitters of REV B and higher.

Ferrite Beacon Controller

Housing

Plastic case ASA

For wall mounting (H x W x D)

Weight

5.2 x 3.2 x 1.0 in (133 x 82 x 26 mm)

7 oz (200 g)

AC Power supply (included)

100 – 240 VAC

DC Power supply

22 - 24 VDC / max. 400 mA (1 antenna)
Max. 800 mA (2 antennas)

Frequency

68 kHz

Supervision Output Relay

Max. Switching power

125 VA / 60 W

Max. Switching voltage

40 V DC

Max. switching current

2 A

Technical data is subject to changes.

FCC Statement for Class B digital device

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note:

Changes or modifications made to this equipment not expressly approved by Bosch may void the FCC authorization to operate this equipment.



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